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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/495,036

Applicant(s)

HAO ET AL.

Examiner

Justin M Philpott

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities:

(1) while general reference is made to Figures 10-13 (page 14, line 16) with respect to Step 1 and general reference is made individually to Figure 12 (page 16, line 3), Figure 14 (page 14, line 18) with respect to Step 2 and Figure 15 (page 16, line 20) with respect to Step 3, the remainder of the detailed description of the invention does not appear to include further reference to these Figures. That is, presently, the steps shown in Figures 10-15 do not appear to be described in the detailed description of the invention. Applicant is respectfully requested to include reference to Figures 10-15, as appropriate, within the description of Steps 1-3 (i.e., pages 15-30) in order to clearly describe the invention;

(2) reference is made to Figure 12 (pages 16, line 3), however, the description that follows (pages 16-17 and specifically page 16, lines 6-17) does not appear to correspond with Figure 12. Clarification is required; and

(3) throughout the specification, and specifically page 16, lines 6-17, reference is made to node and label "v" (and elsewhere,  $v_1-v_k$ ), node " $\mu$ " and outdegree of "u", however, such labels do not appear to be included in any of the figures. On the contrary, Figures 10-13, e.g., include nodes S1-S7, however, the specification does not appear to refer to these nodes. Rather, the only apparent consistency between the elements described in the detailed description of the invention and the elements shown in Figures 10-13 is that of node SCC (shown in Figures 10 and 11 as

SCC1). Appropriate correction is required, particularly via the inclusion of nodes S1-S7 in the detailed description or the inclusion of labels “v”, “v<sub>1</sub>-v<sub>k</sub>”, “μ” and “u” in the figures.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over European Patent Application Publication No. 0 421 652 A2 to Uyar

Regarding claim 3, Uyar teaches a method (e.g., see col. 2, line 46 – col. 3, line 20) of generating a set of test sequences (col. 3, lines 1-5) for evaluating interoperability of a number of interconnected communication systems (e.g., multi-user systems, col. 2, line 48) with respect to a desired mode of communication between a first end user and a second end user, the method comprising: determining a number of operational states that are required of the communication system to implement the desired mode of operation between the first and the second end users (e.g., see col. 5, line 58 – col. 6, line 31), wherein each operational state (e.g., STATE<sub>j</sub>, see FIG. 3) pertains to a first operation of a first system associated with the first end user (e.g., TEST STEP<sub>i</sub>, wherein a first tester/user A sends input<sub>j</sub>, see FIG. 4; see also col. 4, lines 54-56 wherein the term tester is synonymous with user) and a corresponding second operation of a second system associated with the second end user (e.g., TEST STEP<sub>i</sub>, wherein a second tester/user B receives output<sub>j</sub>, see FIG. 4); and testing the interconnected communication systems by causing

the systems to perform specified transitions between pairs of at least some of the operational states (e.g., from STATE<sub>j</sub> to STATE<sub>k</sub>). While Uyar may not specifically disclose that the first and second systems are gateway systems, Uyar discloses the invention is applicable for, e.g., systems running at different speeds independent of each other and including a wide class of implementations that bring services to more than one user via such diverse systems as digital communication switches, PBXs, implementations of high-layer communication protocols, and VLSI systems (e.g., see col. 1, lines 10-15 and col. 11, lines 40-47), thus clearly suggesting applicability to gateway systems. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Uyar to gateway systems as suggested by Uyar by teaching the invention is applicable to the above-mentioned wide class of implementations.

Regarding claims 4 and 8, while Uyar may not specifically disclose one of the systems is in the form of an Internet protocol network to which first and/or second systems are coupled, Uyar discloses the invention is applicable to a wide class of implementations as discussed above regarding claim 3 (e.g., see col. 1, lines 10-15 and col. 11, lines 40-47), and systems in the form of an Internet protocol network are well known in the art. Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Uyar with a system in the form of an Internet protocol network as known in the art in view of Uyar teaching the invention is applicable to the above-mentioned wide class of implementations.

Regarding claims 5 and 9, Uyar teaches providing at least one of the communication systems in the form of a switched telephone network by considering applications for a

telecommunication switch (col. 1, line 27) and teaching the invention is applicable to communication switches and PBXs (col. 11, line 45).

Regarding claim 6, Uyar clearly suggests selecting the desired mode of communication as voice communication by specifically considering applications for voice communications (col. 1, lines 25-36).

Regarding claim 7, Uyar teaches the determining step includes defining a finite state machine (see FIG. 1 and col. 3, lines 41 – col. 4, line 21) having vertices corresponding to the operational states and having edges between the vertices corresponding to the specified transitions.

Regarding claim 10, while Uyar may not specifically disclose eliminating from the testing step operations concerning only the first system and first end user and operations concerning only the second system and second user, Uyar does teach specifically detecting the operations concerning both first and second systems and end users (e.g., test sequences where coordination among testers is needed, see col. 6, lines 3-8). By distinguishing the operations concerning plural systems/users from the operations concerning only one system/user, and by teaching an invention centralized on coordinated testing (cols. 4-12) concerning plural systems/users, Uyar anticipates eliminating from the testing step operations concerning only one system/user.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,623,499 to Ko et al. discloses a method and apparatus for generating conformance test data sequences,

U.S. Patent No. 6,292,909 to Hare discloses an apparatus for testing communication equipment, and

U.S. Patent No. 6,373,822 to Raj et al. discloses a data network protocol conformance test system.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9314 for regular communications and 703.872.9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4750.

Justin M Philpott



May 30, 2003



HUY D. VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600